



45
11/6/2818

Please type a plus sign (+) inside this box → ☐

PTO/SB/21 (6-98)
Approved for use through 09/30/2000. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	09/943,190
	Filing Date	August 29, 2001
	First Named Inventor	Kristy A. Campbell
	Group Art Unit	2818
	Examiner Name	Unknown
Total Number of Pages in This Submission	Attorney Docket Number MI22-1668	

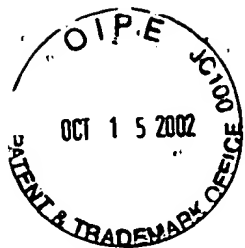
RECEIVED
OCT 16 2002
TECHNOLOGY CENTER 2818

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Assignment Papers (for an Application)	<input type="checkbox"/> After Allowance Communication to Group
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment / Response	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition Routing Slip (PTO/SB/69) and Accompanying Petition	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input checked="" type="checkbox"/> Additional Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	Return Receipt Postcard; PTO-1449 and copies of cited art references
<input checked="" type="checkbox"/> Supplemental Information Disclosure Statement	<input type="checkbox"/> Small Entity Statement	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> Request for Refund	
<input type="checkbox"/> Response to Missing Parts/Incomplete Application	Remarks	Customer No. 021567
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	NO FEE REQUIRED. However, should a fee be determined as due and owing, please charge such fee for any document listed herein to Deposit Account No. 23-0925.	

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Mark S. Matkin, Reg. No. 32,268 Wells St. John P.S.
Signature	
Date	10/8/02

CERTIFICATE OF MAILING			
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on this date: Oct. 09, 2002			
Typed or printed name	Pat Palmer		
Signature		Date	10/09/02

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED

OCT 16 2001

TECHNOLOGY CENTER 2800

Patent Application Serial No.
Filing Date
Inventorship Kristy A. Campbell et al.
Assignee Micron Technology, Inc.
Group Art Unit 2818
Examiner Unknown
Attorney's Docket No. MI22-1668
Title: Method of Forming Non-Volatile Resistance Variable Devices, Methods of
Forming a Programmable Memory Cell of Memory Circuitry, and a Non-
Volatile Resistance Variable Device

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

References - See Attached Form PTO-1449

In compliance with 37 C.F.R. §§ 1.56, 1.97 and 1.98, your attention is directed to the United States patents and other references listed on the attached Form PTO-1449. Copies of the cited art are attached hereto. No admission is made regarding whether all the submitted references are prior art.

This Supplemental Information Disclosure Statement is being filed within three months of the filing date of the application or before the mailing of a first Office Action, whichever occurs last. Therefore, no fee is believed to be required. However, in the event that a fee is required for filing this Supplemental Information Disclosure Statement, please charge the fee specified under 37 C.F.R. § 1.17(p) to Deposit Account No. 23-0925.

Respectfully submitted,

Dated: 10-8-02

By: [Signature]
Mark S. Matkin
Reg. No. 32,268

Form PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
MI22-1668SERIAL NO.
09/943.190LIST OF ART CITED BY APPLICANT
(Use several sheets if necessary)

APPLICANT: Kristy A. Compbell et al.

FILING DATE
August 29, 2001GROUP
2818

U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA	3,622,319	11/23/71	Sharp	96	27	
	AB	3,743,847	07/03/73	Boland	250	510	
	AC	4,269,935	05/26/81	Masters et al.	430	323	
	AD	4,312,938	01/26/82	Drexler et al.	430	496	
	AE	4,320,191	03/16/82	Yoshikawa et al.	430	296	
	AF	4,795,657	01/03/89	Formigoni et al.	427	96	
	AG	4,847,674	07/11/89	Silwa et al.	357	67	
	AH	5,177,567	01/05/93	Klersy et al.	257	4	
	AI	5,219,788	06/15/93	Abernathy et al.	437	187	
	AJ	5,726,083	03/10/98	Takaishi	438	210	
	AK	5,751,012	05/12/98	Wolstenholme et al.	257	5	

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	AL							
	AM							

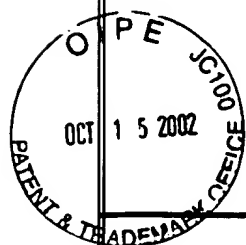
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)

	AN		Das et al., <i>Theory of the characteristic curves of the silver chalcogenide glass inorganic photoresists</i> , 54 APPL. PHYS. LETT., No. 18, pp. 1745-1747 (May 1989).
	AO		Helbert et al., <i>Intralevel hybrid resist process with submicron capability</i> , SPIE Vol. 333 / SUBMICRON LITHOGRAPHY pp. 24-29 (1982)
	AP		Hilt, DISSERTATION: <i>Materials Characterization of Silver Chalcogenide Programmable Metallization Cells</i> , Arizona State University, pp. title page-114 (UMI Company, May 1999).

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Form PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
MI22-1668SERIAL NO.
09/943,190LIST OF ART CITED BY APPLICANT
(Use several sheets if necessary)

APPLICANT: Kristy A. Campbell et al.

FILING DATE
August 29, 2001GROUP
2818

U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA	5,789,277	08/04/98	Zahorik et al.	438	95	
	AB	5,841,150	11/24/98	Gonzalez et al.	257	3	
	AC	5,920,788	07/06/99	Reinberg	438	466	
	AD	5,998,066	12/07/99	Block et al.	430	5	
	AE	6,077,729	06/20/00	Harshfield	438	128	
	AF	6,236,059 B1	05/22/01	Wolstenholme et al.	257	3	
	AG	6,297,170 B1	10/02/01	Gabriel et al.	438	738	
	AH	6,300,684 B1	10/09/01	Gonzalez et al.	257	774	
	AI	6,316,784 B1	11/13/01	Zahorik et al.	257	3	
	AJ	6,329,606 B1	12/11/01	Freyman et al.	174	260	
	AK	6,348,365	02/19/02	Moore et al.	438	130	

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	AL							
	AM							

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)

	AN		Holmquist et al., <i>Reaction and Diffusion in Silver-Arsenic Chalcogenide Glass Systems</i> , 62 J. AMER. CERAMIC SOC., Nos. 3-4, pp. 183-188 (Mar.-Apr. 1979).
	AO		Huggett et al., <i>Development of silver sensitized germanium selenide photoresist by reactive sputter etching in SF₆</i> , 42 APPL. PHYS. LETT., No. 7, pp. 592-594 (April 1983).
	AP		Kawaguchi et al., <i>Mechanism of photosurface deposition</i> , 164-166 J. NON-CRYST. SOLIDS, pp. 1231-1234 (1993).

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
MI22-1668SERIAL NO.
09/943,190LIST OF ART CITED BY APPLICANT
(Use several sheets if necessary)

APPLICANT: Kristy A. Campbell et al.

FILING DATE
August 29, 2001GROUP
2818

U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date, If Appropriate
	AA	6,376,284 B1	04/23/02	Gonzalez et al.	438	129	
	AB	6,391,688 B1	05/21/02	Gonzalez et al.	438	128	
	AC	6,414,376 B1	07/02/02	Thakur et al.	257	640	
	AD	6,418,049 B1	07/09/02	Kozicki et al.	365	174	
	AE	6,423,628 B1	07/23/02	Li et al.	438	622	
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	AL							
	AM							

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)

	AN		McHardy et al., <i>The dissolution of metals in amorphous chalcogenides and the effects of electron and ultraviolet radiation</i> , 20 J. PHYS. C: SOLID STATE PHYS., pp. 4055-4075 (1987).
	AO		Miyatani, <i>Electrical Properties of Ag₂Se</i> , 13 J. Phys. Soc. Japan, p. 317 (1958).
	AP		Mizusaki et al. <i>Kinetic Studies on the Selenization of Silver</i> , 47 BUL. CHEM. SOC. JAPAN., No. 11 pp. 2851-2855 (November 1974).

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
MI22-1668SERIAL NO.
09/943,190LIST OF ART CITED BY APPLICANT
(Use several sheets if necessary)

APPLICANT: Kristy A. Campbell et al.

FILING DATE
August 29, 2001GROUP
2818

U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA	10/077,867		Campbell et al. (as filed)			02/20/2002
	AB	10/232,757		Li, et al. (as filed)			08/29/2002
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	AL							
	AM							

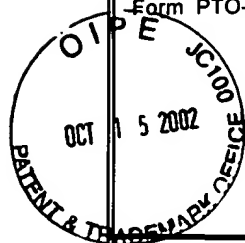
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)

	AN		Owens et al., <i>Metal-Chalcogenide Photoresists for High Resolution Lithography and Sub-Micron Structures</i> , NANOSTRUCTURE PHYSICS AND FABRICATION, pp. 447-451 (Academic Press, 1989).
	AO		Safran et al., <i>TEM study of Ag₂Se developed by the reaction of polycrystalline silver films and selenium</i> , 317 THIN SOLID FILMS, pp. 72-76 (1998).
	AP		Shimizu et al., <i>The Photo-Erasable Memory Switching Effect of Ag Photo-Doped Chalcogenide Glasses</i> , 46 BUL. CHEM. SOC. JAPAN, No. 12, pp. 3662-3665 (December 1973).

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Form PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
MI22-1668SERIAL NO.
09/943,190LIST OF ART CITED BY APPLICANT
(Use several sheets if necessary)

APPLICANT: Kristy A. Campbell et al.

FILING DATE
August 29, 2001GROUP
2818

U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	AL							
	AM							

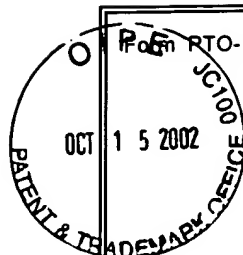
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)

	AN		Somogyi et al., <i>Temperature Dependence of the Carrier Mobility in Ag₂Se Layers Grown on NaCl and SiO_x Substrates</i> , 74 ACTA PHYSICA HUNGARICA, No. 3, pp. 243-255 (1994).
	AO		Tai et al., <i>Multilevel Ge-Se film based resist systems</i> , SPIE Vol. 333 SUBMICRON LITHOGRAPHY, pp. 32-39 (March 1982).
	AP		Tai et al., <i>Submicron optical lithography using an inorganic resist/polymer bilevel scheme</i> , 17 J. Vac. Sci. Technol., No. 5, pp. 1169-1176 (Sept./Oct. 1980).

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. MI22-1668	SERIAL NO. 09/943,190
	LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)		
	APPLICANT: Kristy A. Campbell et al.		
FILING DATE August 29, 2001		GROUP 2818	

U.S. PATENT DOCUMENTS							
*Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate	
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
Document Number	Date	Country	Class	Subclass	Translation		
					Yes	No	
AL							
AM							

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)		
AN		West, DISSERTATION: <i>Electrically Erasable Non-Volatile Memory Via electrochemical Deposition of Multifractal Aggregates</i> , Arizona State University, pp. title page-168 (UMI Co., May 1998).
AO		West et al., <i>Equivalent Circuit Modeling of the Ag As_{0.24}S_{0.36}Ag_{0.40} Ag System Prepared by Photodissolution of Ag</i> , 145 J. Electrochem. Soc., No. 9, pp. 2971-2974 (September 1998).
AP		Yoshikawa et al., <i>A new inorganic electron resist of high contrast</i> , 31 APPL. PHYS. LETT., No. 3, pp. 161-163 (August 1977).

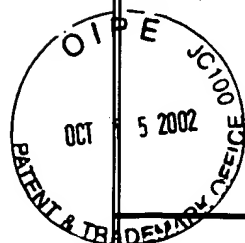
EXAMINER	DATE CONSIDERED
----------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
MI22-1668SERIAL NO.
09/943,190LIST OF ART CITED BY APPLICANT
(Use several sheets if necessary)

APPLICANT: Kristy A. Campbell et al.

FILING DATE
August 29, 2001GROUP
2818

U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	AL							
	AM							

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)

	AN		Yoshikawa et al., <i>Dry development of Se-Ge Inorganic photoresist</i> , 36 APPL. PHYS. LETT., No. 1, pp. 107-109 (January 1980).
	AO		
	AP		

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.